

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 2, line 23 of the Substitute Specification with the following amended paragraph:

In a conventional sensor element for a linear air-fuel sensor operating according to the limiting current principle for determining at least one gas component of an exhaust gas of a combustion engine, it being possible to heat the sensor element to the operating temperature by an integrated electrical resistance heater, e.g., as described in published German patent document ~~DE 191 14 186~~ DE 101 14 186, a thermally conductive layer of platinum being applied to at least one outer surface of the sensor element, specifically in such areas of the outer surface having a high temperature gradient due to the heating by the resistance heater and due to the temperature distribution present outside of the sensor element during operation. The thermally conductive layer balances temperatures between areas having different temperatures, resulting in a reduction of the temperature gradient and accordingly the mechanical stresses in the sensor element which can lead to cracks. The thermally conductive layer contains a metal, platinum in particular, and has a thickness of 5 μm to 50 μm . A ceramic material, e.g., aluminum oxide (Al_2O_3), is added for stabilization.